THE ANALYSIS OF PRIVATE HEALTH INSURANCE PENETRATION DEGREE AND DENSITY IN EUROPE

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Abstract: Over the past two decades, health insurance systems have faced various obstacles, mainly of financial nature, which have ultimately led to various reactions of the private health insurance market. In addition, due to the economic and financial crisis, the role of private insurance is constantly increasing in order to balance out the social health insurance systems' limited capacity of guaranteeing the maintenance and expansion, according to the World Health Organization's recommendations, of health insurance coverage. For these reasons, it is necessary to constantly assess the development of the private health insurance market, in order to quantify both the share of expenditure of private health insurance with regard to total health expenditure and also the penetration degree and density of these forms of health insurance. The penetration degree and density of private health insurance are key indicators by which we can perform a detailed analysis of both quantitative and qualitative nature, which will produce a realistic image on the current level of development.

JEL classification: I10, I11, I13

Key words: private health insurance, private health expenditure, gross written premiums, insurance penetration degree, private health insurance density

1. INTRODUCTION

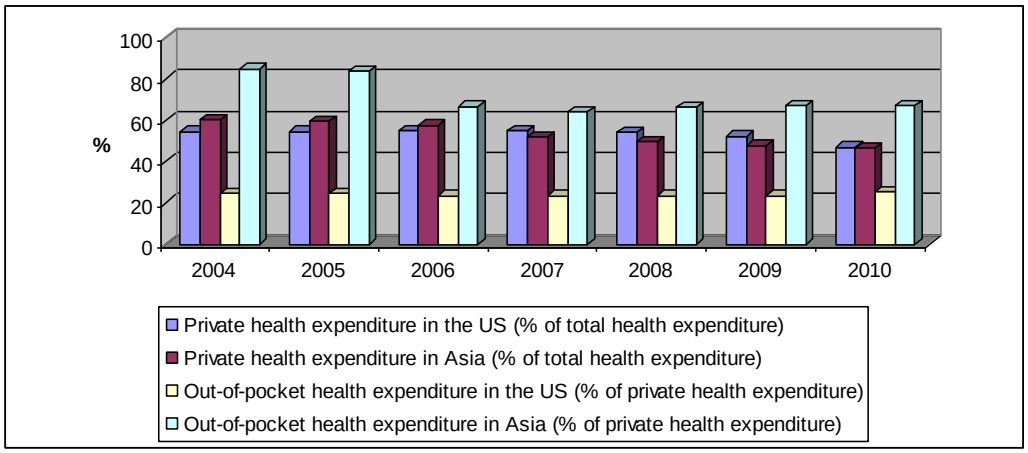
Most commonly, market analysis undertaken in the field of health insurance usually measures the share of private expenditure in relation to total health expenditure. Thus, in Europe, private health expenditure reaches an annual average of 24% of total health expenditure, so the main source of financing is represented by the public sector. Due to the fact that public resources usually cover about 75% of the total health expenditure, there is a high degree of dependency between the health insurance system and the state budget.

Despite these general considerations, the share of private expenditure varies from a maximum of 30,38% in Portugal and a minimum of 4,78% in the United Kingdom. Significant values are also met in Belgium (25,54%), Germany (26,29%), Finland (27,05%) and the Netherlands (28,27%)[1]. For other countries, the share of private expenditure in the total health expenditure reaches a level below the value of 22%, which

[1] World Bank - http://data.worldbank.org/indicator/SH.XPD.PUBL

leads us to affirm that the importance of private, financial resources is quite low in Europe in comparison to the United States of America or Asia (Graph no. 1).

Graph no. 1 Private health expenditure in the US and Asia between 2004-2010 (% of total health expenditure)



Source: working of the authors based on World Bank data, www.worldbank.org

In the United States, during the period under review, private sources funded between 55%, in 2004 and 46,9%, in 2010 of total health expenditure. Despite the downward trend which could be argued for on the basis of the economic crises and high unemployment rates, private health expenditure in the US outruns European expenditure by more than 100%. A similar situation is found in Asia where, according to Graph no. 1, private health expenditure averaged 53,33% of total health expenditure between 2004-2010.

Although the level of private funding is significant in both the U.S. and Asia, it is necessary to take into account certain factors, especially the high level of out-of-pocket expenditure. In this respect, out-of-pocket expenditures on health have averaged, when compared to the total expenditure, 71,41% in Asia and 24,05% in the United States. In other words, in the two regions, about 71,41%, and 24,05% respectively of the total health cost are incurred directly by patients. Given that throughout Asia only 16,56% of private health expenditure is made through private health insurance, we can say that by comparison, the private health insurance market is more developed in Europe, where about 36,45% of private health expenditure and 7,85% of total health expenditure are made through the private health insurance system. Compared to the United States, both regions show a less developed private health sector since 75,5% of private expenditure on health in the U.S. are made through the private health insurance system.

Under these circumstances, we believe that a deeper market analysis can only be carried out with the use of specific insurance indicators such as penetration degree and density.

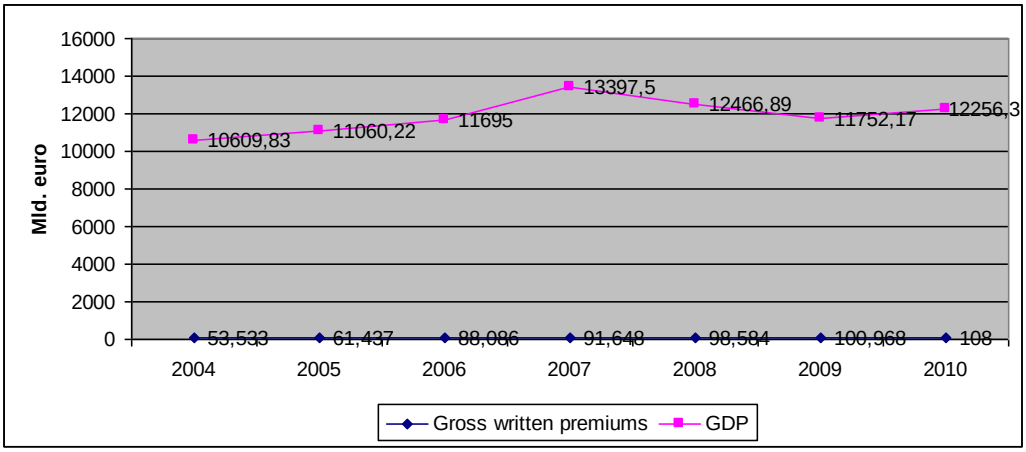
2. PRIVATE HEALTH INSURANCE PENETRATION AND DENSITY IN EUROPE

The penetration degree of private health insurance is an indicator used to assess the dynamics between total gross written premiums and the gross domestic product, highlighting the contribution of the private health insurance sector to the gross domestic

product. The density private health insurance is also a dynamics indicator which brings to light per capita value of the total gross premiums written.

In order to determine the penetration degree of private health insurance, but also the evolution of this indicator in the period 2004-2010, we use the total value of gross written premiums for private health insurance and the gross domestic product, as shown in Graph. 2.

Graph no. 2 Total gross written premiums for private health insurance and GDP in Europe between the years 2004-2010 (mld. euro)



Source: working of the authors based on CEA Insurers of Europe (www.cea.eu and the World Bank (data.worldbank.org)

According to Graph no. 2, both GDP and health insurance gross premiums in Europe have increased between 2004-2010, even though there may be a slight decrease in GDP in 2008 and 2009 due to the economic crisis. By using the values in Graph no. 2, we were able to determine the average penetration degree in Europe between 2004-2010 (Table no. 1).

Table no. 1 Penetration degree in Europe durring 2004-2010 (%)

Indicator	Year						
	2004	2005	2006	2007	2008	2009	2010
Gross written premiums *(mld. euro)*	58,53	61,43	88,08	91,65	98,58	100,97	108,00
GDP *(mld. euro)*	1.009,83	11.060,22	11.695,00	13.397,50	12.466,89	11.752,17	12.256,30
Penetration degree *(%)*	0,551	0,55	0,75	0,68	0,79	0,86	0,88

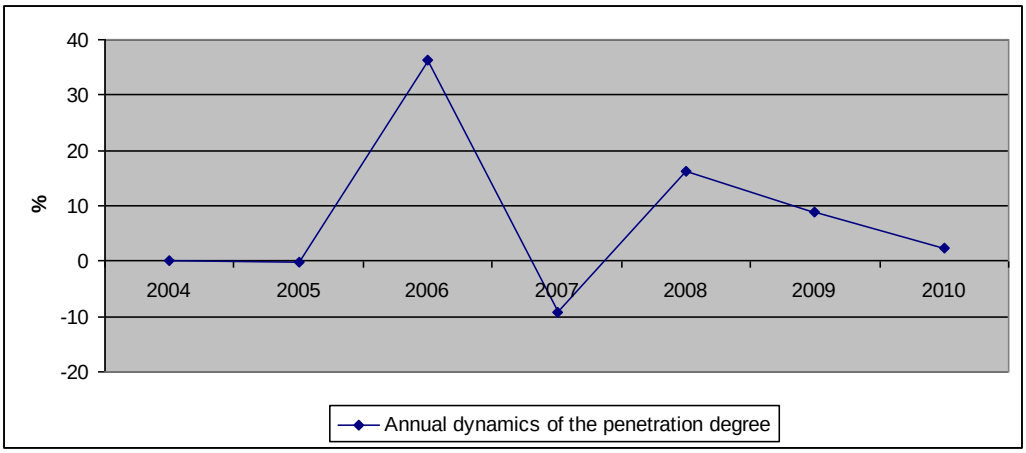
Source: working of the authors based on CEA Insurers of Europe (www.cea.eu and the World Bank (data.worldbank.org)

With an average private health insurance penetration degree of 0,72%, significantly lower than the average penetration degree of 3,2% of the entire non-life insurance market in Europe, we believe that the private health insurance market is still under-developed. In other words, while the entire non-life insurance sector contributes

3,2% to the formation of GDP during the period under review, private health insurance only has a share of 0,72%. Worldwide, a penetration degree of less than or equal to 3% is associated with a low level of development, while a penetration rate between 3% and 7% characterize emerging market sectors.

According to the latest data[2], in 2010-2011 the private health insurance sector in Europe has seen an average increase of almost 6% compared 2009, the most significant growth being recorded in the Netherlands (8%), Germany (5,7%), Spain (5,5%) and France (5,4%). Due to these positive developments the penetration degree of private health insurance has also amplified from a 0,72% average in 2004-2009 to an average of 0,882% between 2009-2011. Still, the positive trend of the indicator has not been constant: the dynamics of the penetration degree only points out a 0,022% increase between 2009-2010 which is mainly due to the unstable economic scenarios in central and eastern Europe.

Graph no. 3 Annual dynamics of the penetration degree in Europe between 2004-2010



Source: working of the authors based onthe results in Table no. 1

As shown in Graph no. 3, the variation rate of private health insurance penetration degree is positive on the average, while annual rhythms vary significantly. Thus, the most significant increase (36,36%) has been recorded between the years 2005-2006, when all European economies stood in a phase of accelerated growth. Instead, in 2007, forecasts regarding the imminent recession have negatively influenced the private health insurance market and caused a decrease of – 9,33%. Since 2008, private insurance penetration degree, again, recorded positive developments amid a GDP growth rate lower than the growth rate of the gross written premiums. Between 2010 and 2011, the economic uncertainty in all European countries has led, in turn, to the manifestation of a constant growth rate of 0,022%. Given the absolute values of the penetration degree of private health insurance, we believe that medium and long term prospects look favorable to the industry.

For better representation of the result we consider it to be necessary to determine the individual indicator for a number of countries which have an apparently well developed private health insurance market. In this respect, in Table no. 2 we have calculated, for 15 countries, the private health insurance penetration degree for the period 2004-2010.

[2] *CEA Insurers of Europe* - www.cea.eu

Table no. 2 Penetration degree for the selected European countries (2004-2010, % of GDP)

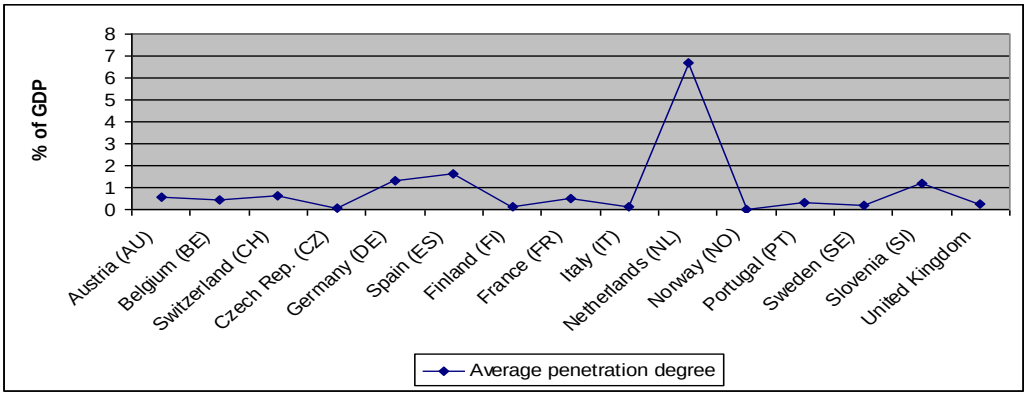
Contry	Penetration degree in the year: (%)						
	2004	2005	2006	2007	2008	2009	2010
Austria	0,572	0,570	0,554	0,541	0,542	0,578	0,572
Belgium	0,265	0,282	0,293	0,308	0,323	0,352	0,431
Switzerland	1,374	1,340	1,288	1,212	1,593	1,604	0,610
Czech Rep.	0,020	0,024	0,026	0,033	0,041	0,047	0,070
Germany	1,202	1,229	1,230	1,213	1,226	1,325	1,302
Spain	0,477	0,481	0,488	0,500	0,520	0,566	1,597
Finland	0,061	0,071	0,073	0,076	0,086	0,101	0,109
France	0,389	0,413	0,420	0,440	0,439	0,479	0,493
Italy	0,112	0,119	0,122	0,131	0,137	0,143	0,140
Netherlands	1,560	1,509	5,824	5,590	5,864	6,395	6,693
Norway	0,003	0,005	0,005	0,006	0,006	0,009	0,011
Portugal	0,231	0,241	0,253	0,260	0,280	0,296	0,308
Sweden	0,000	0,000	0,000	0,000	0,533	0,199	0,157
Slovenia	1,060	0,996	1,085	1,064	1,046	1,175	1,157
United Kingdom	0,280	0,292	0,298	0,302	0,276	0,290	0,274

Source: working of the authors based on CEA Insurers of Europe (www.cea.eu and the World Bank (data.worldbank.org)

According to Table no. 2 penetration degree varies significantly among the countries surveyed, with a maximum of 6,69% in 2010 in the Netherlands and a minimum of 0,02% in the Czech Republic in 2004. Compared to the European average we find that in Switzerland, Germany, the Netherlands and Slovenia the private health insurance market contributes significantly to the formation of the gross domestic product, while in the Czech Republic, Finland and Norway, the penetration degree of private health insurance is low. In terms of average penetration for the whole period analyzed, the most developed private health insurance market is found in the Netherlands, with a value of 4,77% between 2004-2010. A spectacular evolution of this indicator is recorded after the year 2006, when the health care reform has increased the penetration degree 3,89 times from 1,5% in 2005, to 5,84% in 2006. During the same period the gross written premiums averaged 189.625 million Euros. The lowest amount of gross written premiums is found in Norway (136 million Euros). The insignificant insurance penetration in Norway is justified by the existence of a highly performing statutory health insurance system and the high level of health insurance coverage.

In dynamics, the average private health insurance penetration degree for each country is shown in Graph no. 4.

Graph no. 4 Average penetration degree for the selected European countries (2004-2010, % of GDP)



Source: working of the authors based on the results in Table no. 2

In order to correctly asses the current situation of the private health insurance market in Europe, we will analyze health insurance density, i.e. the ratio between the value of gross premiums written and the number of inhabitants in each country and also, overall, the level Europe.

Table no. 3 Private health insurance density in selected European countries (2004-2010, euro per capita)

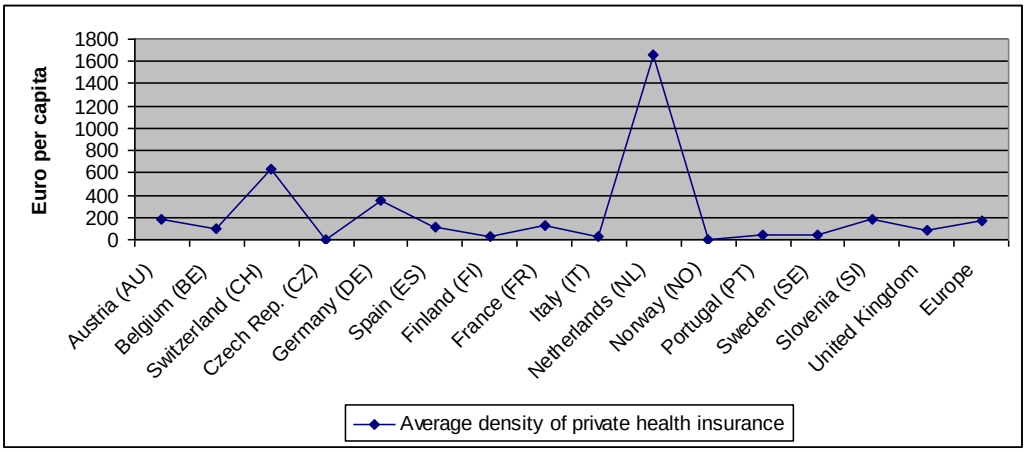
Contry	Private health insurance density: *(euro/capita)*							
	2004	2005	2006	2007	2008	2009	2010	Average 04/10
Austria	165,06	170,46	174,09	179,04	184,52	190,42	195,57	179,97
Belgium	74,35	81,5	89,05	97,78	104,81	111,50	141,05	100,35
Switzerland	545,53	541,59	538,93	512,22	720,67	738,88	824,57	633,80
Czech Rep.	1,82	2,56	3,07	4,31	6,12	6,43	9,99	4,93
Germany	320,03	331,48	345,50	357,90	368,91	383,74	394,48	357,36
Spain	94,84	101,80	109,97	118,42	124,91	129,58	138,59	117,29
Finland	17,82	21,39	23,21	25,96	30,37	33,04	36,81	26,99
France	103,56	113,15	119,70	130,63	132,84	140,72	147,53	127,06
Italy	27,24	29,35	31,11	34,67	36,21	36,54	36,34	33,11
Netherlands	471,58	475,29	1926,20	1954,03	2125,15	2215,84	2376,29	1652,90
Norway	1,77	2,76	3,05	4,10	4,14	5,39	7,41	4,12
Portugal	33,00	35,37	38,64	41,56	45,47	47,02	50,01	41,61
Sweden	0,00	0,00	0,00	0,00	193,61	62,84	58,34	45,43
Slovenia	144,62	143,40	168,21	183,05	194,00	204,19	200,30	176,99
United Kingdom	83,11	89,26	96,38	102,32	81,42	73,86	75,483	85,91
European average	119,75	125,09	178,60	185,04	198,08	202,05	215,51	175,15

Source: working of the authors based on CEA Insurers of Europe (www.cea.eu and the World Bank (data.worldbank.org)

According to the data presented in Table no. 3. one can easily grasp the fact that in most countries, but also at European level, private health insurance density has been

positioned on an upward trend. The highest value was recorded in 2010 in the Netherlands (2.376,291 euro / inhabitant) where the density of private health insurance is well above the European average of 175,155 euro / inhabitant. The lowest private health insurance density is found in Norway, amounting 7,41 euro / capita (Graph no. 5).

Graph no. 5 Average private health insurance density for the selected European countries (2004-2010, euro per capita)



Source: working of the authors based on the results in Table no. 3

A reverse trend is found in Sweden, where the density decreased from a value of 193,61 euro / capita in 2008 to 58,346 euro / capita in 2010, which indicates a decrease in the demand for private health insurance between 2008 -2010. Overall, we consider that in terms of density, private health insurance in Europe presents a low popularity which is due to the existence of well developed social health insurance schemes which have not yet met their limits.

3. CONCLUSIONS

On the basis of the undertaken analysis we believe that, despite the relatively large number of people having a private health insurance in some countries (Netherlands, Germany, France) and a high level of private health expenditure, in terms of penetration degree and density the European private health insurance market is still under developed, with clear favorable prospects for the future.

As we have shown, a simple comparison between private and total health expenditure leads to incomplete results, offering a somewhat distorted picture. Even though, at present, the potential of this sector is still under-exploited, after analyzing the obtained values, we found a clear upward trend in the market. Should future health system reforms aim to reduce the financial burden of the state and try to create additional health insurance pillars, it is possible that the private health insurance market in Europe move in a favorable direction, bringing substantial benefits to all people, insured or not in social health insurance systems. However, in order to boost private health insurance products, careful regulation is required so that the increase in demand be favored and that of cost be limited. Although a strict increase of costs could lead to a temporary density increase, in the long term such a measure would be expected to adversely affect the sustainability of the statutory health insurance system.

References

1. CEA Insurers of Europe www.cea.eu
2. World Bank www.data.worldbank.org
3. * * * http://data.worldbank.org/indicator/SH.XPD.PUBL